Preface All IBM Data Processing Systems, regardless of size, type, or basic use, have certain common fundamental concepts and operational principles. This manual presents these concepts and principles as an aid in developing a basic knowledge of computers. The limitation is compounded when the user calls for the retrieval of a piece of information. The computer is forced to search through a long reel of information for the piece. Access is slow; time is lost. There are many types of IBM data processing systems. These systems vary in size, complexity, speed, cost, and application. But, regardless of the information to be processed or the equipment used, all data processing involves at least three basic considerations: 1. The source data or input entering the system. Notes taken when reading Kleppman’s Designing Data Intensive Application. 35 stars. 16 forks. IBM’s Information Management System used a simple data model called the hierarchical mode, which has remarkable similarities to the JSON model of used by document databases. Like document databases, it worked well for one-to-many relationships but made many-to-many difficult. A relational table is a simple collection of tuples, and that’s it. Chapter 3 - Storage and Retrieval. How does a database store the data we give it, and does it find it again when asked. In order to tune a storage engine to perform well on your kind of workload, you need to have a rough idea of what the storage engine is doing under the hood. A Relational Model of Data for Large Shared Data Banks. E. F. Codd IBM Research Laboratory, San Jose, California. Future users of large data banks must be protected, from, having to know how the data is organized. Those application programs which take advantage of the stored ordering of a file are likely to fail to operate correctly if for some reason it becomes necessary to replace that ordering by a different one. Similar remarks hold for a stored ordering implemented by means of pointers. Subroutines to which the system has access for use in qualifying data for retrieval. Thus, the class of qualification expressions which can be used in a set specification must have the descriptive power of the class of well-formed formulas of an applied predicate calculus. When you retrieve data from XML columns of a database table in an SQLJ application, the output data must be explicitly or implicitly serialized. The host expression or iterator data types that you can use to retrieve data from XML columns are output data and whether an XML declaration with an encoding specification is added. The following table lists the methods that you can call to retrieve data from a.